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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

JUN 11 1993

FEDERAL COMMUNICATIONS COMMISSION

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unnecessary uncertainty by the investment community, RFM respectfully suggests that the

Commission continue its efforts in this matter to their logical conclusion

SUMMARY

Although RFM is a proponent and supporter of LMS technology and application, RFM also supports continued growth of the consumer device manufacturers whose devices utilize the frequency band 902-928 MHz. RFM does not believe that the public interest will be served if, by its proposed allocation of radio spectrum to LMS operators, the Commission creates an exclusion of several vital industries, which provide valuable goods and services to millions of consumers and end users.

Accordingly, RFM respectfully suggests that the Commission adopt rules which reflect the value of existing devices employing the subject frequency band and avoid the economic waste of rendering these millions of devices unreliable or ineffective.

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Before the
FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter Of

Amendment of Part 90 of the
Commission's Rules to Adopt
Regulations For Automatic
Vehicle Monitoring Systems

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PR Docket No. 93-61
RM-8013

To: The Commission

COMMENTS OF RF MONOLITHICS, INC.

RF Monolithics, Inc. ("RFM"), by and through counsel, hereby comments to the Commission's Notice Of Proposed Rule Making (NPRM) in the above captioned matter and offers the following for the Commission's consideration:

RFM's Participation

RFM is the leading producer of surface acoustic wave (SAW) devices within the United States. Its products are used to filter the emissions for a variety of low-powered devices, to insure reliable operation and compliance with the Commission's emissions standards in accord with Part 15 of the Commission's Rules. Its products compete favorably overseas with foreign component manufacturers and it is one of the few American electronic component producers which has been able to compete effectively in the industry with Japanese firms, including within the country of Japan.

As one of its necessary functions, RFM has assisted in the design of numerous products for marketing within the United States that include RFM's state-of-the-art technology. It has

also participated in the production of numerous systems for the Department of Defense and is the undisputed leader in its field.

RFM's assistance has allowed numerous products to meet the Commission's mandated standards for operation of devices in the 902-928 MHz frequency band in accord with Sections 15.247 and 15.249 of the Commission's Rules. RFM attributes no small portion of its vitality to the rapidly increased use of this band by unlicensed device manufacturers, encouraged by the past statements and decisions of the Commission.

Accordingly, RFM is vitally interested in the outcome of this proceeding and its potential impact on the future production, sale and use of the 902-928 MHz band by unlicensed radio devices. RFM is also uniquely qualified as a component and design company to reflect on the whole of the industry, rather than some small portion thereof.

RFM Supports Development Of LMS Systems And Technology

RFM supports and encourages the Commission's efforts to adopt rules which will support investment in and technological development of LMS *nee* AVM systems. As recognized by the Commission, the service to the public to be provided by these systems is too valuable to be allowed to flounder due to uncertain regulatory guidelines. To do less would continue the present chill on investment and innovation, subjecting the introduction of service to the vagaries of the financial marketplace. Accordingly, to serve the needs of the public and to remove

the reliable operation of numerous other devices, already present in the market and serving the needs of millions of consumers.

Since the Commission's proposals include the whole of the 902-928 MHz band for operation of relatively high-powered LMS transmitters, to be distributed liberally throughout most urban areas, the Commission can logically expect that unlicensed devices operating on these bands in proximity to LMS systems will rapidly demonstrate erosion in reliability and eventually will be rendered useless due to a rapidly rising noise floor or direct co-channel interference from LMS systems. Since this is an irrefutable fact which is recognized within the Commission's NPRM, the Commission should pause and determine whether the public interest in LMS is sufficiently great to justify the exclusion of the following technologies and devices from the marketplace:

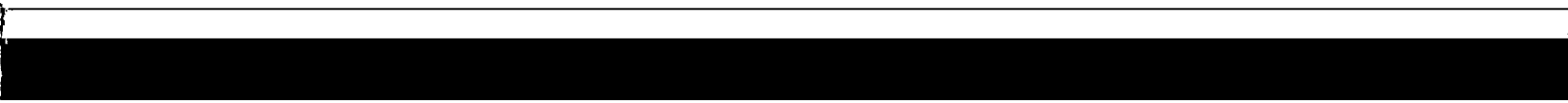
**Residential And Commercial Security Systems
Residential And Commercial Cordless Phones
Short Range Data Communications Systems
Wireless Local Area Computer Networks
Electronic Toll Management Systems
Smoke Detectors And Safety Devices
Utility Meter Reading Equipment
Wireless Bar Code Readers
Spread Spectrum Devices
Retail Anti-theft Systems**

The above list represents tremendous benefits to the United States in goods, services, employment of citizens, and the vitality of a rapidly growing segment of the American economy. It should not be brushed aside lightly due to the mere fact that the devices represented above

operate under one Rule Part versus another. The public interest does not recognize Rule Parts. It only recognizes value presented to the marketplace. It is apparent, employing any yardstick, that the services and devices listed above serve not only the most basic needs of the American consumer, but deliver such services using the newest, most efficient technologies available today.

Over the past ten years, the producers of each kind of device has been encouraged to develop their products within the 902-298 MHz band. The Commission specifically created rules and stated in former decisions that technologies, such as spread spectrum, hold great promise and should be brought to the marketplace with all necessary investment. Relying on the Commission's encouragement, manufacturers moved forward in response to the Commission's invitation and promise of an accommodating regulatory environment. With its present proposals, the Commission risks breaking its promise.

All manufacturers represented by the above incomplete list realized that they must operate at sufferance in accord with the specific terms of Part 15. Therefore, they designed their devices to avoid the frequency bands 904-912 MHz and 918-926 MHz where it reasonably appeared that the Commission would encourage the growth of AVM systems. And within the remaining spectrum of the 902-928 MHz band, they brought to the American marketplace millions upon millions of consumer devices which have substantially improved the quality of life. In sum, they took the Commission at its word and provided to the public the best that the



What these manufacturers request within this rule making is a continuation of the Commission's promise not to unnecessarily destroy whole industries, factories, and technologies by its sweeping proposals which would eliminate and exclude their products from the marketplace. Instead, these manufacturers request that the Commission limit its rule making to the bands 904-912 MHz and 918-926 MHz for adoption of LMS licensing and operation rules.

Such reasonable limitation of the scope of the Commission's proposals is proper and would still provide for the construction and operation of at least two wide-band LMS systems in each market. Nothing contained in the earlier comments suggests that more than two such systems are required to meet reasonably anticipated demand. In fact, there continues to exist considerable doubt as to whether such systems truly require the enormous bandwidth requested by the proponents.

Accordingly, RFM respectfully requests that the Commission not rule with such a heavy hand and recognize the sensitive operations and valuable contribution to the public interest of unlicensed radio devices operating within these bands.

The Commission's Choices

By its NPRM, the Commission has presented itself with choices, both of which might serve the public interest in one manner or another. The Commission has confronted such choices before and traditionally rules to provide the greatest benefit to the largest segment of the American population, providing preferences for the most vital services which might promote the

safety of lives and property. These are the standards which the Commission has articulated in the past and these are the standards which RFM requests be applied within this proceeding.

Simply stated, the Commission may choose to continue to adoption its proposals which

technology back by five years. The necessary research and development of reliable spread spectrum devices is sufficiently complex to require a long research and development time period for the introduction of new products. The nature of the Commission's proposals threatens to undermine years of research and development by spread spectrum producers and is contrary to the Commission's statements made during its adoption of Sections 15.247 and 15.249. It would be no surprise, therefore, if the whole of the emerging spread spectrum manufacturing community suffered a severe blow from the Commission's proposals, with many members not surviving.

The Commission's examination of the effects of adoption of its proposals should not, however, cease with manufacturers of affected devices. The Commission's consideration should also extend to the millions of consumers presently served by unlicensed devices operating in these bands. Consumers have paid thousands of dollars for LAN equipment and short range data communications systems which might easily be rendered useless by the introduction of LMS across the whole of the 902-928 MHz band. Thousands of security systems and smoke detectors will be unreliable, perhaps without consumers' knowledge of the source of the problem. The results of undetected unreliability within these systems could be quite disastrous.

Users of cordless phones would find that their equipment is suddenly producing poor quality transmission and reception. Consumers which reasonably relied on legitimate manufacturers in purchasing their equipment, which in turn reasonably relied on the Commission's encouragement to employ the band for these purposes, would find that their

investment in this equipment should have come with a warning label, reflecting the possible shifting authorities visited within this proceeding.

The Commission does not serve the public interest when its actions support widespread economic waste, particularly, as in this instance, when such waste is wholly unnecessary. It also does not serve the public interest by and through the elimination of the employment of thousands of consumers whose livelihoods depend on the continued viability of the consumer products they produce for operation within this frequency band.

Conclusion

For the foregoing reasons, RFM respectfully requests that the Commission temper its zeal to establish a healthy LMS industry and recognize the great public interest served by the continued sale and operation of unlicensed devices within the 902-928 MHz frequency band. RFM requests that Commission limit its allocation for LMS systems to only the 904-912 MHz and 918-926 MHz band for such laudable operations, maintaining what is good in the band and making better only what is lacking in the public's use of the band.

Respectfully submitted,

RF MONOLITHICS, INC.

By


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Dated: 6/11/93

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